

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF NEW YORK**

DISPLAY TECHNOLOGIES, LLC,

Plaintiff,

vs.

PYLE PRO AUDIO CORP.,

Defendant.

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Case No: 19 cv 4282

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PATENT CASE

**COMPLAINT**

Plaintiff Display Technologies, LLC (“Plaintiff” or “Display”) files this Complaint against Pyle Pro Audio Corp. (“Defendant” or “Pyle”) for infringement of United States Patent No. 9,300,723 (the “‘723 Patent”).

**PARTIES AND JURISDICTION**

1. This is an action for patent infringement under Title 35 of the United States Code. Plaintiff is seeking injunctive relief as well as damages.

2. Jurisdiction is proper in this Court pursuant to 28 U.S.C. §§ 1331 (Federal Question) and 1338(a) (Patents) because this is a civil action for patent infringement arising under the United States patent statutes.

3. Plaintiff is a Texas limited liability company with a place of business at 1801 NE 123rd Street, Suite 314, North Miami, FL 33161.

4. On information and belief, Defendant is a New York corporation with a principal office address of 1600 63 St., Brooklyn, NY 11204.

5. This Court has personal jurisdiction over Defendant because Defendant has committed, and continues to commit, acts of infringement in this District, has conducted

business in this District, and/or has engaged in continuous and systematic activities in this District.

6. Upon information and belief, Defendant's instrumentalities that are alleged herein to infringe were and continue to be used, imported, offered for sale, and/or sold in this District.

### **VENUE**

7. On information and belief, venue is proper in this District under 28 U.S.C. § 1400(b) because Defendant is deemed to be a resident of this District.

### **COUNT I** **(INFRINGEMENT OF UNITED STATES PATENT NO. 9,300,723)**

8. Plaintiff incorporates paragraphs 1 through 7 herein by reference.

9. This cause of action arises under the patent laws of the United States and, in particular, under 35 U.S.C. §§ 271, *et seq.*

10. Plaintiff is the owner by assignment of the '723 Patent with sole rights to enforce the '723 Patent and sue infringers.

11. A copy of the '723 Patent, titled "Enabling social interactive wireless communications," is attached hereto as Exhibit A.

12. The '723 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

13. Defendant has infringed and continues to infringe one or more claims, including at least Claims 12, 14, 16, 17, and 20 of the '723 Patent by making, using, and/or selling media systems covered by one or more claims of the '723 Patent. For example, Defendant makes, uses, and/or sells the Street Flow Wireless & Portable Bluetooth Boombox (Model No. PBMSPB130BK) having NFC pairing, and any similar products ("Product"). Defendant has

infringed and continues to infringe the '723 Patent in violation of 35 U.S.C. § 271.

14. Regarding Claim 12, the Product is configured to receive a media file (e.g., music file) from a wireless mobile device (e.g., mobile phone) over a communication network (e.g. Bluetooth network or NFC). The wireless mobile device (e.g., mobile phone) sends data (e.g., music file) to the media system. The wireless mobile device is a passive NFC device, whereas the media system is an active NFC device as it can receive the data during wireless transmission. Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.



Source: <https://www.pyleaudio.com/sku/PBMSPG130BK>

- **COMPATIBLE WITH BLUETOOTH / NFC:** This high powered loud street blaster speaker is compatible w/ NFC / bluetooth for wireless audio streaming and works w/ iPhone android mobile phone iPad tablet PC. Package includes shoulder carry strap

Source: [https://www.amazon.com/dp/B01COEN5W4/ref=psdc\\_7073956011\\_t2\\_B0756NQFJ9](https://www.amazon.com/dp/B01COEN5W4/ref=psdc_7073956011_t2_B0756NQFJ9)

There are two different types of NFC: active and passive. Active NFC, which is currently used on many Android devices, as well as the new Apple devices, can send and receive data. One major use of NFC is storing and transferring contact or credit card information. With apps such as Google Wallet on Android phones, you can simply tap your device to pay at stores.

Source: <https://thetartan.org/2014/9/15/scitech/howthingswork>

Passive NFC, on the other hand, can only send data.

Source: <https://thetartan.org/2014/9/15/scitech/howthingswork>

15. The Product includes a wireless receiver (e.g., Bluetooth receiver). Certain aspects of this element are illustrated in the screenshots below and/or in those provided in connection with other allegations herein.

**Bluetooth Wireless Streaming:**

- Instantly Stream Music from Your Devices
- Works with All Your Favorite Bluetooth Devices
- (iPhone, Android, Smartphone, iPad, Tablet, PC, etc.)
- Bluetooth Version: 4.0
- Bluetooth Wireless Range: 50'+ Feet

Source: <https://www.pyleaudio.com/sku/PBMSPG130BK>

16. The Product includes a security measure (e.g., Bluetooth PIN). Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.

**Pair the speaker manually**

1. Verify that the Bluetooth function of Bluetooth device is enabled.
2. Choose the Bluetooth menu in your Bluetooth device, and from the found devices, select the "Pyle Audio". If you are prompted to enter the PIN code, please enter "0000" (four zeros).

Source: <https://images-na.ssl-images-amazon.com/images/I/B1WjVT9R2ZS.pdf>

17. The Product is disposed in an accessible relation to at least one interactive computer network (e.g., Bluetooth network) that has a wireless range (e.g., 50' + feet)

structured to permit authorized access (e.g., via pairing code) to said at least one interactive computer network. Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.

**Bluetooth Wireless Streaming:**

- Instantly Stream Music from Your Devices
- Works with All Your Favorite Bluetooth Devices
- (iPhone, Android, Smartphone, iPad, Tablet, PC, etc.)
- Bluetooth Version: 4.0
- Bluetooth Wireless Range: 50'+ Feet

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- COMPATIBLE WITH BLUETOOTH / NFC: This high powered loud street blaster speaker is compatible w/ NFC / bluetooth for wireless audio streaming and works w/ iPhone android mobile phone iPad tablet PC. Package includes shoulder carry strap

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**Pair the speaker manually**

1. Verify that the Bluetooth function of Bluetooth device is enabled.
2. Choose the Bluetooth menu in your Bluetooth device, and from the found devices, select the "Pyle Audio". If you are prompted to enter the PIN code, please enter "0000" (four zeros).

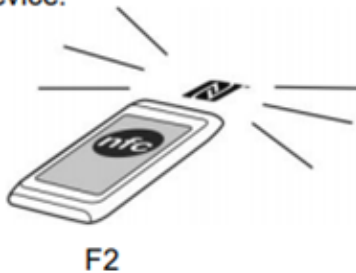
Source: <https://images-na.ssl-images-amazon.com/images/I/B1WjVT9R2ZS.pdf>

18. When the wireless mobile device is within the wireless range, the wireless mobile device is detectable by the media system (e.g., the Wireless & Portable Bluetooth BoomBox Speaker automatically detects a smartphone with NFC when placed within NFC range). Data transmission through NFC is done by two devices: polling device and listening device. The polling device is the one that initiates the communication link and the listening device is the one that detects the signal. In the Product, the media system is the polling device

and the wireless mobile device is the listening device. The media system (active NFC) is sending electromagnetic signals within a certain area. The mobile phone (passive NFC) detects the signals and the connection is established. As the electromagnetic signals are being initiated by the media system, the media system behaves as an initiator (polling device) and the mobile device phone behaves as a target (listening device). Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.

**Pair the speaker using NFC**

1. With Near Field Communication (NFC), you can easily pair and connect the speaker to Android device with NFC.
2. If the Android device supports NFC, activate its NFC feature, and touch the NFC area of the speaker with the NFC area of your Android device (F2). The speaker pairs and connects to the Android device automatically. For details on NFC, see the user guide of the Android device.



Source: <https://images-na.ssl-images-amazon.com/images/I/B1WjVT9R2ZS.pdf>

**Reference Polling Device:**

When connected to a suitable signal generator and power amplifier, an NFC Forum reference polling device sends commands to a listening device. The response from a listening device can then be captured and analyzed by measurement equipment.

**Reference Listening Device:**

The NFC Forum reference listening device analyses the signal sent out by a polling device. For analyzing the frequency and wave-shapes of these signals, the NFC Forum reference listening device is equipped with an integrated sense coil. The NFC Forum reference listening device can also send information back to a polling device, using various levels of load modulation generated using an external suitable signal source like an arbitrary waveform generator.

Source: [https://cdn.rohde-schwarz.com/pws/dl\\_downloads/dl\\_application/application\\_notes/1ma182/1MA182\\_5E\\_NFC\\_WHITE\\_PAPER.pdf](https://cdn.rohde-schwarz.com/pws/dl_downloads/dl_application/application_notes/1ma182/1MA182_5E_NFC_WHITE_PAPER.pdf)



NFC has many uses, but how does it work? According to the blog Android Authority, NFC is just another wireless transmission standard. But unlike Bluetooth or Wi-Fi, it is able to send information passively. It does this by using a process called electromagnetic induction. When an active NFC component comes near a passive component, the active component's electromagnetic field causes small currents to flow through the passive part. The generated power allows the passive NFC to send data whenever the active part is nearby. Close proximities allow for a stronger electromagnetic field to affect the NFC, which is why most devices need to be so close to each other to transfer valuable information.

Source: <https://thetartan.org/2014/9/15/scitech/howthingswork>

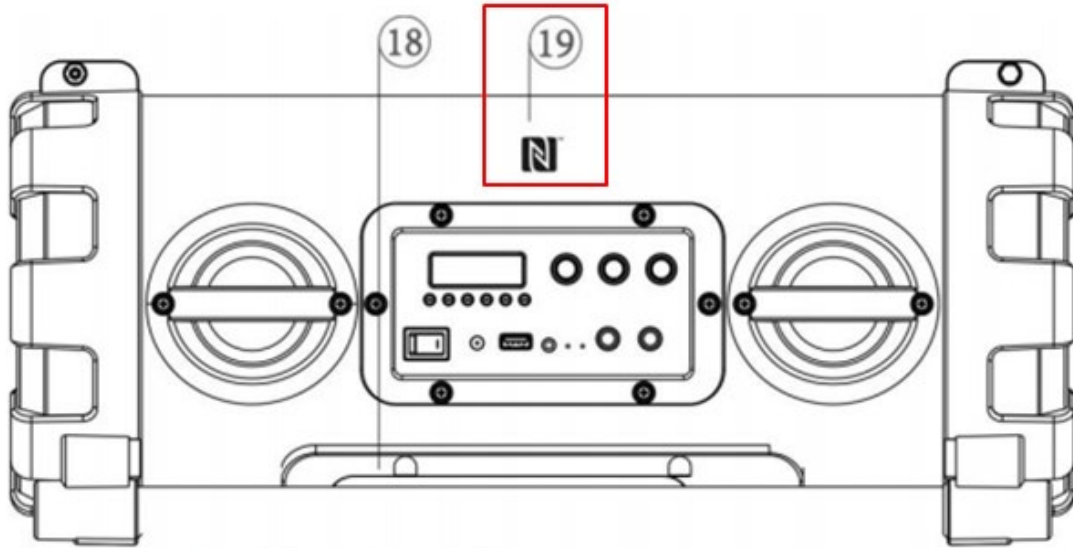
19. At least one digital media file (e.g., music file) is initially disposed on the wireless mobile device (e.g., the mobile phone includes one or more music files). Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.

#### Product description

Add high-powered sound and style with the Pyle Street Flow BoomBox! This Bluetooth speaker system features wireless music streaming along with built-in LED lights that pulse to the music. Enjoy full-range stereo sound along with a visual display that'll help the beats flow! Connect & stream audio from all of your favorite devices (like Smartphones, Tablets, Laptops, etc.). Built-in rechargeable battery adds convenient portability and lets you stream music for up to 4 hours without recharging. It's jam-packed with music streaming options like NFC Android Pairing, FM Radio, USB Flash Drive Reader, along with an Aux (3.5mm) Jack allowing you to connect and stream audio from even more external devices. Play your music while the lights glow with the Pyle Street Flow!

Source: [https://www.amazon.com/dp/B01COEN5W4/ref=psdc\\_7073956011\\_t2\\_B0756NQFJ9](https://www.amazon.com/dp/B01COEN5W4/ref=psdc_7073956011_t2_B0756NQFJ9)

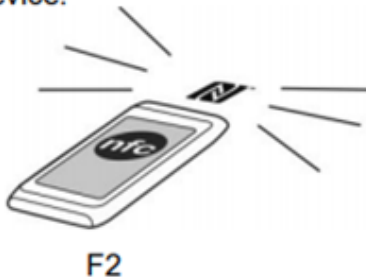
20. The media system is structured to detect the wireless mobile device disposed within the wireless range (e.g., Wireless & Portable Bluetooth BoomBox Speaker automatically detects the mobile phone when placed within NFC range). The media system (active NFC) sends electromagnetic signals within a certain area. The mobile phone (passive NFC) detects the signals and the connection is established. Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.



19. NFC AREA

**Pair the speaker using NFC**

1. With Near Field Communication (NFC), you can easily pair and connect the speaker to Android device with NFC.
2. If the Android device supports NFC, activate its NFC feature, and touch the NFC area of the speaker with the NFC area of your Android device (F2). The speaker pairs and connects to the Android device automatically. For details on NFC, see the user guide of the Android device.



Source: <https://images-na.ssl-images-amazon.com/images/I/B1WjVT9R2ZS.pdf>



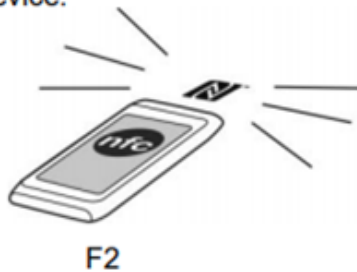
NFC has many uses, but how does it work? According to the blog Android Authority, NFC is just another wireless transmission standard. But unlike Bluetooth or Wi-Fi, it is able to send information passively. It does this by using a process called electromagnetic induction. When an active NFC component comes near a passive component, the active component's electromagnetic field causes small currents to flow through the passive part. The generated power allows the passive NFC to send data whenever the active part is nearby. Close proximities allow for a stronger electromagnetic field to affect the NFC, which is why most devices need to be so close to each other to transfer valuable information.

Source: <https://thetartan.org/2014/9/15/scitech/howthingswork>

21. A communication link (e.g., NFC) is structured to dispose the media system (Wireless & Portable Bluetooth BoomBox Speaker) and the wireless mobile device (e.g. mobile phone) in a communicative relation with one another via the at least one interactive computer network. Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.

**Pair the speaker using NFC**

1. With Near Field Communication (NFC), you can easily pair and connect the speaker to Android device with NFC.
2. If the Android device supports NFC, activate its NFC feature, and touch the NFC area of the speaker with the NFC area of your Android device (F2). The speaker pairs and connects to the Android device automatically. For details on NFC, see the user guide of the Android device.



Source: <https://images-na.ssl-images-amazon.com/images/I/B1WjVT9R2ZS.pdf>

- COMPATIBLE WITH BLUETOOTH / NFC: This high powered loud street blaster speaker is compatible w/ NFC / bluetooth for wireless audio streaming and works w/ iPhone android mobile phone iPad tablet PC. Package includes shoulder carry strap

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22. The communication link is initiated by the media system (e.g., the media system sends electromagnetic signals which are detected by the mobile phone). Certain aspects of this element are illustrated in the screenshots provided in connection with other allegations herein.

23. The wireless mobile device and the media system are structured to transmit the at least one digital media file there between via the communication link (e.g., Wireless & Portable Bluetooth BoomBox Speaker allows for the transmission of files between itself and the wireless mobile device; e.g., the mobile device transmits the music file to the media system). Certain aspects of this element are illustrated in the screenshots provided in connection with other allegations herein.

24. The communication link is structured to bypass the security measure of the media system for a limited permissible use of the communication link by the wireless mobile device for only transferring the at least one digital media file to, and displaying the at least one digital media file on, the media system (e.g., the Wireless & Portable Bluetooth BoomBox Speaker bypasses the security measure (e.g., PIN-based pairing process) of the Bluetooth network using the NFC). Certain aspects of this element are illustrated in the screenshots provided in connection with other allegations herein.

25. Regarding Claim 14, the transmission of the at least one digital media file from the wireless mobile device to the media system completely bypasses the security measure (e.g., the Wi-Fi security settings such as encryption or password requirements are completely

bypassed for the purpose of transmitting the digital media file). Certain aspects of this element are illustrated in the screenshots provided in connection with other allegations herein.

26. Regarding Claim 16, the media system is an audio system.

27. Regarding Claim 17, the communication link is a Bluetooth connection.

28. Regarding Claim 20, the digital media file is provided by the wireless mobile device.

29. Defendant's actions complained of herein will continue unless Defendant is enjoined by this court.

30. Defendant's actions complained of herein are causing irreparable harm and monetary damage to Plaintiff and will continue to do so unless and until Defendant is enjoined and restrained by this Court.

31. Plaintiff is in compliance with 35 U.S.C. § 287.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff asks the Court to:

(a) Enter judgment for Plaintiff on this Complaint on all causes of action asserted herein;

(b) Enter an Order enjoining Defendant, its agents, officers, servants, employees, attorneys, and all persons in active concert or participation with Defendant who receive notice of the order from further infringement of United States Patent No. 9,300,723 (or, in the alternative, awarding Plaintiff running royalties from the time of judgment going forward);

(c) Award Plaintiff damages resulting from Defendant's infringement in accordance with 35 U.S.C. § 284;

(d) Award Plaintiff pre-judgment and post-judgment interest and costs; and

(e) Award Plaintiff such further relief to which the Court finds Plaintiff entitled under law or equity.

DATED July 25, 2019

Respectfully submitted,  
/s/ Gerard F. Dunne  
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